

**Jeopardy and Background Information**  
for the Proposed Incidental Taking Authorization for the  
state threatened Greater Redhorse (*Moxostoma valenciennesi*)  
at the Milwaukee Street Bridge in Watertown, Wisconsin

Background

The Greater redhorse is a state threatened fish in Wisconsin. It occurs in widely scattered but localized populations within the Mississippi River and Lake Michigan drainage basins. Only two populations are known from the Rock River basin in Wisconsin, one of which is the approximately one-mile reach downstream from the dam in Watertown to 500 meters downstream of the State Highway 26 crossing. This reach is a continuous riffle-run comprised of clean gravel, cobble, and boulders and is excellent habitat for the Greater redhorse. This river segment averages 250 to 300 feet in width with water depths, under summer low flows, averaging one meter or less. A deeper area just below the dam increases to 2 meters in depth.

Recent 2006 surveys estimated between 30 to 50 Greater redhorse occurring in the section from below the dam to the Milwaukee St. bridge crossing. Comparable numbers of greater redhorse were also found at the STH 26 bridge crossing. During the spring this extensive reach is used as spawning habitat for the Greater redhorse, as well as other redhorse species. Hundreds of redhorse have been observed throughout this reach of the Rock River during the spawning period. The spawning period for the Greater redhorse occurs in May and June in moderately rapid shallow waters over clean sand, gravel and rubble.

The location at the Milwaukee St. bridge is valuable spawning habitat for this species, however the width of the bridge comprises only a very small percentage of the overall suitable habitat for the Greater redhorse in this reach of the Rock River. Outside of the spawning period, only a fraction of the Greater redhorse population occurs in the project area.

Although valuable spawning habitat exists at the bridge, the habitat under this specific bridge location is not critical to Greater redhorse within this reach of the Rock River or on a statewide basis. As a result this project will not result in the destruction or permanent adverse modification of habitat that is critical to the Greater Redhorse in the state.

Jeopardy Assessment

With the conservation measures listed below, the bridge demolition and replacement should not directly impact the Greater redhorse and its young and not permanently damage instream habitat for the species. The measures include:

1. Project activities will not occur during the spawning time of the greater redhorse (May – June), unless the species is isolated from the project area as described below (#2) and adequate erosion control measures are followed to prevent sedimentation downstream (#5).
2. Fish will be prevented from entering the work area during the spawning period by isolating all instream work areas (i.e. sheet piling, turbidity barriers, jersey barriers with sand bags, or other measures deemed effective).
3. Construction debris will be contained (by netting, decking, or other appropriate measures) to prevent debris from entering the water during the bridge demolition and reconstruction. Blasting to remove the existing piers will be conducted in a manner that minimizes shock waves to the surrounding water and contains any materials released as a result of the blast.

4. Any debris entering the water during demolition of the old bridge or construction of the new bridge will be removed in a manner to minimize damage to the stream bottom, and to the satisfaction of DNR staff.
5. Exceptional erosion control and erosion prevention practices will be implemented to ensure sedimentation is prevented or minimized to the maximum extent possible downstream and within the project area.
6. All instream equipment or materials shall be free of zebra mussels. Any sheet piling, if used, for pier construction shall be watertight. Any coffer dams, shall be in accordance to DNR requirements for cofferdams and consist of clean materials.
7. Any dead fish observed in the water or along the shore in the project area during or immediately after pier or bridge removal shall be noted and reported to the DNR as soon as possible.
8. Additional conservation measures may be developed depending on construction, demolition, or blasting methods options employed by the contractor.

The Department has determined that the measures above will be taken to minimize impacts to this species; that the taking is not likely to jeopardize the continued existence or recovery of the state population of the Greater redhorse or the whole plant-animal community of which they are a part; and the action will benefit the public safety that justifies the action.